

CONFIDENTIAL

CLASSIFICATION CONFIDENTIAL
 CENTRAL INTELLIGENCE AGENCY
 INFORMATION FROM
 FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT []
 CD NO. []

50X1-HUM

COUNTRY	USSR	DATE OF INFORMATION	1950
SUBJECT	Scientific - Miscellaneous, new books		
HOW PUBLISHED	Monthly periodical	DATE DIST.	<i>1 Nov 1950</i>
WHERE PUBLISHED	Moscow	NO. OF PAGES	8
DATE PUBLISHED	Jan 1950		
LANGUAGE	Russian	SUPPLEMENT TO REPORT NO.	

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT BD U. S. C., §1 AND §2, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED

THIS IS UNEVALUATED INFORMATION

SOURCE Elektrichestvo, No 1, 1950, pp 95-96.

NEW SOVIET BOOKS ON ELECTRICITY,
ELECTRICAL ENGINEERING, AND ELECTRIC POWER

1. The Fundamentals of Radio Engineering (*Osnovy radiotekhniki*), Vol I, Amalitskiy, M. V., Svyaz'izdat, 1949, 264 pp, 8 rubles (R); 2d edition, revised and corrected. Approved as a textbook for electrical engineering schools specializing in communications.
2. Ship Radio Engineering and Radio Navigation (*Sudovaya radiotekhnika i radionavigatsiya*), Bayrashevskiy, A. M., published by "Morskoy transport," 1949, 365 pp, R 14.75. Approved as a textbook for the navigation department of nautical schools.
3. The Electric Drive on an Airplane (*Elektroprivod na samolete*), Bruskin, D. E., Bokshitskiy, L. V., Military Publishing House, 1949, 176 pp, R 6.50. A textbook on special aircraft equipment for air force technical personnel.
4. Electric Brazing and Welding of Cutting Tools (*Elektronapayka i elektronavarka rezhushchego instrumenta*), Bukhman, N. A., edited by I. I. Semenchenko, published by Scientific Research Institute, Ministry of Machine Tool Building USSR, 1949.
5. Electrification of the National Economy of the USSR (*Elektrifikatsiya narodnogo khozyaystva SSSR*), Veyts, V., Latgosizdat, 1949, 28 pp, R 0.50. (in Latvian).
6. Application of the Theory of Similarity and Physical Modeling in Electrical Engineering (*Primeneniye teorii podobiya i fizicheskogo modelirovaniya v elekrotekhnike*), Venikov, V. A., Gosenergoizdat, 1949, 168 pp, R 9.
7. Electrovacuum Instruments (*Elektrovakuumnyye pribory*), Vlasov, V. F., Svyaz'izdat, 1949, 519 pp, R 22.50; 2d edition, revised and enlarged. Approved as a textbook for higher education institutions.
8. Charged Particle Accelerators (*Uskoriteli zaryazhennykh chastits*), Vorob'yev, A. A., Gosenergoizdat, 1949, 344 pp, R 29.

CONFIDENTIAL

CLASSIFICATION CONFIDENTIAL

STATE	<input checked="" type="checkbox"/> NAVY	<input checked="" type="checkbox"/> NSRB	DISTRIBUTION					
ARMY	<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> FBI						

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

Book is a systematic exposition of material from the extensive periodical literature of the past two decades. The rapid development of the theory of accelerating apparatus, to which Soviet scientists made a large contribution, has recently resulted in the appearance of new practical methods for using accelerated charged particles in nuclear technology, for obtaining superhard X-rays, etc. Soviet scientist Veksler has worked out the basis of a new method of resonance acceleration, which enables particles to be accelerated to an energy of the order of hundreds of millions of electron-volts. Modern charged particle acceleration techniques already enable one to obtain streams of electrons and protons with speeds approaching that of light. A new field of interesting physical phenomena which will increase our knowledge of nature is opening up. Discovery of the luminous electron, predicted by Soviet physicists Ivanenko and Pomeranchuk, discovery of the division process of medium-heavy nuclei, creation of methods of nuclear fission, and obtaining mesotrons under laboratory conditions are only a few of the successes achieved by nuclear technology. Therefore, the systematization of material on the construction and operation of various electronic and ionic accelerating apparatus, published in domestic and foreign literature, which has been carried out by the author of this book is to be welcomed, despite the presence of isolated errors.

9. USSR Hydroelectric Power Engineering in the Postwar Five-Year Plan (Gidroenergetika SSSR v poslevoennom pyatiletke), Voznesenskiy, A. N., All-Union Society for the Dissemination of Political and Scientific Knowledge, published by "Pravda," 1949, 20 pp, R 0.60.

10. Selection of Cross Sections of Conductors and Cables for Electric Wiring (Vybor secheniy provodov i kabeley dlya elektroprovodok), Vorontsov, F. F., Gosenergoizdat 1949, 91 pp, R 3.75.

11. Transient Processes in Linear Systems, (Perekhodnyye protsessy v lineynikh sistemakh) Gardner, M. F., Burns, J. L., translated by P. I. Zubkov and M. Libkind, edited by G. I. Atabekov and Ya. Z. Tsypkin, Gostekhizdat, 1949, 528 pp, R 27.

12. Introduction of Radio Engineering Methods Into the National Economy (Vnefereiniye radiotekhnicheskikh metodov v narodnoye khozyaystvo), Ginzburg, Z. E., Exhibits of Seventh Correspondence Radio Exhibition, Gosenergoizdat, 1949, 58 pp, R 1.75 (Mass Radio Library under general editorship of A. I. Berg, No. 30).

13. The Electrodesalinifier Operator (Operator elektrobesoslivayushchey ustanovki), Gluzband, N. V., Gostoptekhnizdat, 1949, 51 pp, R 1.25 ("Aids to New Petroleum Industry Personnel" Series).

14. Technical Operation of Electric Power Stations and Substations, (Tekhnicheskaya eksploatatsiya elektricheskikh stantsii i podstantsii), Grudinskiy, P. G., Gosenergoizdat, 1949, 368 pp, R 19.

15. Irregular Running of Hydroelectric Station Units (Neravnomernost' khoda agregatov gidroelektrostantsii), Gurbich, Ye. F., Gosenergoizdat, 1949, 127 pp R 5.

16. Index of Journal Articles on Problems of the History of Electrical Engineering in Russia and the USSR (Ukazatel' zhurnal'nykh statey po voprosam istorii elektrotekhniki v Rossii i SSSR) (annotations), Gurfinkel', E. Ye., edited by I. P. Pyshkin, Odessa Electrical Engineering Communications Institute, 1949, 39 pp.

17. Electric Models (Elektricheskiye modeli), Gutenskher, L. I., Academy of Sciences USSR, Institute of Precision Mechanics and Computer Technology, published by Academy of Sciences USSR, 1949, 404 pp, R 23.

- 2 -

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

18. Electric Models and Their Use in Engineering and Physics (Elektricheskiye modeli i ikh primeneniye v tekhnike i fizike), Gutemakher, L. I., All-Union Society for the Dissemination of Political and Scientific Knowledge, published by "Pravda", 1949, 32 pp, R 0.60.

19. Tonal Telegraphy Apparatus (Apparatura tonalnogo telegrafirovaniya) (description of some types of ac telegraphic apparatus), Dubovik, V. A., Svyaz' izdat, 1949, 306 pp, R 24.

20. The RL-8 Two Tube Battery Supernet (Dvukhlampovyy batareynyy super RL-8), Yenyutin, V., DOSARM, 1949, 14 pp.

21. Radar (Radiolokatsiya), Zhigarev, L., Latgospizdat, 1949, 40 pp, R 1.20 (Popular Science Library) (in Latvian).

22. Traction Substations for City Electric Surface Transport (Tyagovyye podstantsii gorodskogo nazechnogo elektrotransporta), Zagaynov, N. A., Shaposhnikov, V. G., published by Ministry of Communal Economy RSFSR, 1948, 328 pp, R 15. Approved as a textbook for electromechanical technical schools for city electric transport.

Book examines construction and operation of equipment and problems of designing traction substations, giving the main data on their installation. In addition to its use as a textbook in technical schools, the book can also serve as a handbook for operators.

23. The Basic Concepts of Modern Physics (Osnovnyye preistavleniya sovremennoy fiziki), Ioffe, A. F., Gostekhizdat, 1949, 368 pp, R 7.75.

24. Pulse Techniques (Impul'snaya tekhnika), Itskkoki, Ya. S., All-Union Correspondence Power Engineering Institute, published by "Sovetskoye radio," 1949, 198 pp, gratis. Conspectus of lectures.

25. Elementary Course in Ultrahigh-Frequency Radio Engineering (Elementarnyy kurs radiofizicheskikh ultravyschishkh chastot), Caver, M., translated by N. A. Sabetzkiy, Military Publishing House, 1949, 216 pp, R 8.

26. Guide to the Theoretical Electrical Engineering Laboratory (Rukovodstvo k laboratorii teoreticheskoy elektrotekhniki). Vol I. Guide to the AC Laboratory, Kalantarov, P. L., Gosenergoizdat, 1949, 182 pp, R 6.85. Approved as a textbook for higher educational institutions.

27. The Short-Wave Operator's Handbook (Spravochnik korotkochvlnnika), Kalemäa, K., Rayasaar (editor), published by Taktu Raadio Club, 1949, 16 pp, R 3 (in Estonian).

28. Insulation of Electrical Machines (Isolatsiya elektricheskikh mashin), Kalitvianskiy, V. I., Gosenergoizdat, 1949, 342 pp, R 18.

29. Operation and Repair of Mining Electrical Equipment (Eksploatatsiya i remont rudnichnogo elektrooborudovaniya), Kiklevich, N. A., Ugletekhizdat, 1949, 356 pp, R 28.50.

30. The Electron Microscope (Elektronnyy mikroskop), Klement'yev, S. D., Detgiz, 1949, 64 pp, R 1.80 ("Tales of Soviet Science" Series).

31. Resonance Systems and Resonance Amplifiers (Resonansnyye sistemy i rezonansnyye usiliteli), Kolosov, A. A., Svyaz'izdat, 1949, 560 pp, R 16. Approved as a textbook for higher educational institutions.

- 3 -

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

32. Operational Calculus and Nonstationary Phenomena in Electric Circuits
 (Operatsionnoye ischisleniye i nestacionarnyye yavleniya v elektricheskikh
 tsepyakh) Kontorovich, M. I., Gostekhnizdat, 1949, 215 pp, R 7.95 (Engineer's
 Physicomathematical Library).

33. How to Construct a Crystal Receiver (Kak postroit' detektornyy priyem-
 nik), Kubarkin, L. V., Yenyutin, V. V., State Publishing House of Georgian SSR,
 1949, 14 pp, R 1 (in Georgian).

34. Streetcar and Trolleybus Traction Networks (Tyagovyye seti tramvaya i
 trolleybusa), Kuznetsov, P. I., published by Ministry of Commercial Economy RSFSR,
 1948, 271 pp, R 9.20. Approved as a textbook for electromechanical technical
 schools.

Book describes equipment for traction networks of streetcar and trolley-
 bus electric supply systems, gives information on installation and operation of
 contact and cable circuits, and also methods for electrical and mechanical de-
 sign of these circuits and their structural components.

35. Communication and Signaling at Electrical Power Stations and Substations
 (Svyaz i signalizatsiya na elektrostantsiyakh i polosistemakh), Kukkov, V. V.,
 Gosenergoizdat, 1949, 272 pp, R 10. Approved as a textbook for workers' train-
 ing courses and foremen's courses.

36. Piezoelectricity and Its Practical Applications (Piezoelektrичество
 i yego prakticheskiye primeneniya), Gady, W., translated by B. N. Postovalov and
 V. P. Konstantinova, edited by A. V. Shubnikov, Foreign Literature Publishing
 House, 1949, 718 pp, R 59.

Translation of a book by W. Gady which appeared in English in 1946.
 Gives detailed examination of published articles in the field. (Work of B. M.
 Vul and his school in the field of seignettoceramic materials, and of A. V.
 Shubnikov and A. S. Shein on piezoelectric textures has not yet been touched
 on.) Bibliography contains about 900 titles. Editor has made corrections and
 amendments in some parts of the book.

37. I Want to Be a Radio Amateur. I. The First Steps ('Ye khochu stat'
 radiolyubitelem. I. Pervyye shagi), Labutin, V. K., Gosenergoizdat, 1949, 58 pp,
 R 1. (Mass Radio Library under editorship of A. I. Berg, No 23).

38. Cold Luminescence (Kholeinoye svetleniye), Levenshin, V. V., All-Union
 Society for the Dissemination of Political and Scientific Knowledge, published
 by "Pravda," 1949, 39 pp, R 0.60.

39. Handbook on Standards, Departmental Technical Specifications, and De-
 partmental Norms for the Production of the Ministry of Electrical Industry USSR
 (Spravochnik po standartam, vedomstvennym tekhnicheskim usloviyam i vedomstven-
 nym normamyam na produktsiyu ministerstva elektropromstvlennosti), Editing and
 Publishing Office, Central Bureau of Technical Information, Ministry of Elec-
 trical Industry USSR, 1949, 128 pp, R 7

Handbook contains about 600 references to GOST, OST, VTU, and VN ap-
 proved before 1 May 1949, mainly referring to parts manufactured by enterprises
 of the Ministry of Electrical Industry, and also to parts and materials which
 are chiefly intended for this ministry. For ease of reference, the GOST, OST,
 VTU, and VN are listed in both numerical and alphabetical order.

40. The Shaposhnikov Crystal Receiver (Detektornyy priyemnik shaposhnikova),
 Litvinov, S., DOSARM, 1949, 16 pp.

- 4 -

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

41. Surface Hardening and Induction Tempering of Steel (Poverkhnostnaya zakalka i induktsionnyy nagrev stali), Lopatinsky, M. G., Mashgiz, 1949, 460 pp, R 32.70

42. Low-Frequency Amplifiers (With Universal Supply) (Usiliteli nizkoy chastoty [s universal'nym pitaniem]), Malinin, R. M., Gosenergoizdat, 1949, 65 pp, R 2 (Mass Radio Library under general editorship of A. I. Berg, No 29).

43. Radio in the Service of Man (Radio na sluzhbe u cheloveka), Malov, N. N., Tatgosizdat, 1949, 68 pp, R 2.75 (in Tartar).

44. The Electric Eye: Photoelectric Cells and Their Uses (Elektricheskiy glaz: fotoelementy i ikh primeneniye), Mezentsev, V. A., Gosstekhizdat Ukrainsky, 1949, 48 pp, R 1 (in Ukrainian).

45. Transformer and Choke Design (Raschet transformatorov i dr. sseley), Mikhaylov, V. A., Gosenergoizdat, 1949, 89 pp, R 3 (Mass Radio Library under general editorship of A. I. Berg, No 31).

46. Chemical Sources of Current Supply for Communications Equipment (Khimicheskiye istochniki toka dlya pitaniya sredstv svyazi), Morozov, G. G., Gantman, S. A., Military Publishing House, 1949, 399 pp, R 14. Textbook for communications officers.

47. Scientific and Technical Session on Overvoltages in Power Systems (Nauchno-tehnicheskaya sessiya po perenapravzheniyam v energosistemakh), VNITOE, 1949, 40 pp. Theses of reports.

48. Surface Effect in Ferromagnetic Bodies (Poverkhnostnyy effekt v ferromagnitnykh telakh), Neyman, L. R., Gosenergoizdat, 1949, 190 pp, R 9.50.

49. Electrical and Technological Properties of the Petrov Arc (Elektricheskiye i tekhnologicheskiye svoystva dugi petrova), Ogiyevetskiy, S. A., Moscow Correspondence Institute of the Metal Industry, 1949, 26 pp, R 6. Additional chapters for the course, "Arc Welding and Automatization of Arc Processes."

50. Handbook for the Rural Electrician (Spravochnik sel'skogo elektrika), Odintsov, V. G., Vekshteyn, G. S., Sel'khozgiz Ukrainsky, 1949, 204 rubles, R 8.50.

51. Electrification of Agriculture in Moscow Oblast (Elektrifikatsiya sel'skogo khozyaistva moskovskoy oblasti), Gospolitizdat, 1949, 64 pp, R 0.60.

52. Urban Transport (Gorodskoy transport), Petrov, V. K., Sosyants, V. G., Published by Ministry of Communal Economy RSFSR, 315 pg. Approved as a textbook for specialists in economics and organization of urban economy.

Book contains a technical description of modern mass city transport -- streetcar, bus, and trolleybus, with brief data on the subway. Special attention is devoted to calculation of passenger flow and carrying capacity of transport, and also to determining the configuration of the transport network and selecting the type of city transport for planning purposes. Book consists of an introduction and following six chapters: (1) Development of city transport and its state in the USSR and capitalist countries. Stresses Soviet priority in developing modern types of transport, in particular, the electric streetcar. (2) City passenger transport rolling stock. Examines modern requirements for rolling stock of rail and nonrail transport, and gives the design of the main types of streetcars, including the new, fast all-metal cars, and also the technical figures for the main types of traction motors. Gives data for various types of USSR autobuses, comparing them with the ZIS-154 Diesel-electric bus. Examines electrical and automechanical equipment of trolleybuses in detail. Includes basic information on subway rolling stock and its electrical, mechanical, and pneumatic equipment. (3) Basic laws of mechanical transport traffic, with procedure for constructing the traffic curves of trains. Rail-less city

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

tramway and subway roads and routes. (5) Electricity supply arrangements for city electric transport; main principles for the electric design of the network and the selection of traction substation size; problems of the contact network. Other chapters treat general problems (not characteristic of electric transport).

53. Technology of Radio Apparatus Production (Tekhnologiya proizvodstva radioapparatury), Plakhotnik, S. M., Gosenergoizdat, 1949, 228 pp, R 8.40.
Approved as a working guide for technical schools.

54. Production of Communications Cables (Proizvodstvo kabley svyazi), Posherstnik, M. Yu, Turkin, N. G., Gosenergoizdat, 1949, 136 pp, R 4.15.

55. Radar Station Receivers (Priyemniki radiolokatsionnykh stantsii), Part I, translation edited by A. P. Sivers, published by "Sovetskoye Radio," 1949, 220 pp, R 12.

56. Dimitriy Aleksandrovich Lachinov, Rzhomnitskiy, F. N., Gosenergoizdat, 1949, 107 pp, R 3.75.

"The Russians have proved that in the field of electrical engineering they are not behind other nations, but are ahead of them, and frequently show them the way." These are the words of D. A. Lachinov, outstanding representative of Russian electrical engineering thought at the end of the 19th Century. This book, dedicated to Lachinov, gives detailed biographical information, material concerning the engineering, scientific, and pedagogical and inventive activity of this great electrical engineer, and active collaborator of the journal Elektrичество and one of the leading workers in the electrical engineering division of the Russian Engineering Association.

D. A. Lachinov was a pupil of F. Kh. Lents. His work in the field of long-distance electric power transmission is of classic significance. Much information on the life and work of D. A. Lachinov is printed in the book for the first time.

57. Normalization and Economy of Electrical and Heat Energy (Normirovaniye i ekonomiya elektricheskoy i teplovoy energii), Sevanov, A. P., edited by A. P. Vladziyevskiy, Ministry of Machine Tool Building USSR, 272 pp, R 2.5.

58. Vibration of Electric Power Station Units and Balancing of Rotors (Vibratsiya agregatov elektrostantsii i balansirovka rotorov), Samoylov, V. A., Gosenergoizdat, 1949, 160 pp, R 6.50.

59. The Radio Designer (Radiokonstruktor), Smetanin, B. M., Gosenergoizdat, 1949, 25 pp, R 0.75 (Mass Radio Library under general editorship of A. I. Berg, No 32).

60. The EM-1 Electromagnetic Power Directional Relay (Unidirectional) and the ER-1 Electromagnetic Differential Relay With Damping Coils (Elektromagnitnoye rele napravleniya moshchnosti EM-1 otdostoronnego deystviya i elektromagnitnoye differentsial'noye rele ER-1 s tormoznymi katushkami), Smirnova, T. V., Ministry of Electric Power Plants USSR, Telploenergoprojekt, Urgres, 1949, 19 pp, gratis.

61. Rural Tube Receivers (Sel'skiye lampovyye priyemniki), Spizhevskiy, I. I., published by "Moskovskiy rabochii," 1949, 80 pp, R 2.75.

62. Thunder and Lightning (Molniya i grom), Stekol'nikov, I. S., State Publishing House of Moldavia, 1949, 40 pp, R 0.75 (in Moldavian).

63. Low-Frequency Amplifiers (Usiliteli nizkoy chastoty), Part I. Voltage Amplifiers Stepanov, D. V., MET, 1949, 112 pp, gratis. Conspectus of lectures.

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

64. A Simple Four-Tube Kolkhoz Superhet (Prostoy chetyrekhlampovyy kolkhoznyy super), Tarasov, F., DOSARM, 1949, 8 pp.

65. Lectures of the Course "Electrical Materials" (Lektsii po kursu "elektromaterialovedeniye"), No 1. Metallic Conducting Materials, Tareyev, B. M., Ministry of Higher Education USSR, All-Union Correspondence Power Engineering Institute, Editing and Publishing Division of VEEI, 1949, 55 pp, gratis.

66. Electrical Engineering Materials (Elektrotekhnicheskiye materialy), Tareyev, B. M., Gosenergoizdat, 1949, 232 pp, R 7.50; 3d edition, revised. Approved as a textbook for training workers and intermediate technical personnel.

Second edition of this book was reviewed in Elektrichestvo. No 10, 1947. Present edition has been supplemented by brief information concerning the history of the development of electrical material studies in Russia and the USSR, and following sections have been revised somewhat: electric insulating lacquers, solvents, bitumens, cable filling compounds, preservation, of wood, mica insulation, and winding conductors. However, it is to be regretted that many criticisms made when reviewing second edition were not considered by Gosenergoizdat when preparing third edition, evidently because most of the pages were printed from matrices.

67. The New State Light Standard of the USSR (Novyy gosudarstvennyy svetovoy etalon SSSR), Tikhodeyev, P. M., Commission on Illumination Engineering, Academy of Sciences USSR, 1949, 120 pp, R 5.

68. Standardization of Electric Power Consumption and Power Factor at Coal Pits (Normirovaniye raskhoda elektroenergii i koefitsiyenta moshchnosti na ugle'nykh razrezakh), Trop, A. Ye., All-Union Scientific Research Coal Institute, Ugletekhzdat, 1949, 20 pp, R 1.25.

69. Chemical Production Technology (Tekhnologiya elektrokhimicheskikh proizvodstv), Khomyakov, V. G., Mashovets V. P., Kur'min, L. L., Goskhimizdat, 1949, 376 pp, R 25. Textbook for chemical-technological higher educational institutions and faculties.

70. News of Welding Technology (Novosti svarochnoy tekhniki), Khrenov, K. K., Academy of Sciences Ukrainian SSR, Scientific and Technical Propaganda Council, published by Academy of Sciences Ukrainian SSR, 1949, 86 pp, R 3.

71. The Electric Welding Arc (Elektricheskaya svarochnaya duga), Khrenov, K. K., Mashgiz, 1949, 204 pp, R 16.50.

The welding arc, which, physically speaking, is a high amperage discharge at atmospheric pressure, was invented at the end of the last century by the Russian engineers N. N. Benardos and N. G. Slavyanov. USSR occupies a leading place in arc welding, not only for volume of production but also for high technical level. Many Soviet scientists have worked on electric welding problems (V. P. Nikitin, Ye. O. Paton, G. A. Nikolayev, V. P. Vologdin, K. K. Khrenov, and others). Book systematically examines processes in the welding arc and shows priority of USSR inventors and scientists in this field. Book is intended for engineers and scientific workers. Author has paid special attention to results of experimental investigations which may find industrial application. Describes physical principles of the arc discharge, investigates action of magnetic fields on the welding arc, explains chemical reactions and process of melting and transference of metal in the arc. Special attention is devoted to problems of underwater welding and cutting and other types and forms of welding arcs.

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

72. The Impulse (Superspeed) Method in Roentgenology (Impul'snyy /sverkh-skorostnoy/ metod v rentgenologii), Uspenskiy, N. Ye., All-Union Society for the Dissemination of Political and Scientific Knowledge, published by "Pravda", 1949, 24 pp, R 0.60.

73. Contact Potential Difference and Its Influence on the Operation of Electrovacuum Instruments (Kontaktnya raznost' potentialov i yeye vliyanije na rabotu eleketrovakuumnikh priborov), Tsarev, B. M., Gostekhizdat, 1949, 171 pp, R 6.

74. Lightning (Molniya), Efendi-Zade, A. A., All-Union Society for the Dissemination of Political and Scientific Knowledge, Leningrad Department, 24 pp, R 0.75

- E N D -

- 8 -

CONFIDENTIAL

CONFIDENTIAL